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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/17/2005

Ho-yeul Choi

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23413 7590 11/03/2011
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EXAMINER

VETERE, ROBERT A

ART UNIT

PAPER NUMBER

1712

NOTIFICATION DATE

DELIVERY MODE

11/03/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

DETAILED ACTION***Examiner's Comments***

An amendment, amending claim 1, was received on 10/24/11. However, this amendment has not been entered at this time because it presents new issues for further search and consideration. Specifically, the limitation that at least two shell polymers are formed had not been previously presented and would require further search and consideration.

Response to Arguments

1. Applicant's arguments filed 10/24/11 have been fully considered but they are not persuasive.

Applicant first argues that Izaki fails to disclose when the chain transfer agent is added. This is not persuasive. While the examiner agrees that Izaki does not expressly state the timing for introduction of the transfer agent, Izaki states that the chain transfer agent is added to the copolymer (see, e.g., 3:51-4:8). Thus, because Izaki teaches that it is added to the copolymer, as opposed to the monomer, Izaki implicitly teaches that the chain transfer agent is added after polymerization. Furthermore, Izaki teaches that the chain transfer agent can be added continuously to the process. Therefore, when the chain transfer agent is added continuously, it will be supplied up to and including the completion of polymerization.

Applicant further argues that Baker fails to teach that the transfer agent is added "after a polymerization step of an outermost layer of the multiple shell polymerization is completed." This is not persuasive. This language does not appear in the claims as currently presented. Instead the claims require that the chain transfer agent is added after completing *the preparation* of the outermost layer. The examiner interprets this preparation of the outer layer to be completed once prepolymerization is initiated. Baker teaches a method of forming a core/shell polymer (Abst.) wherein a prepolymer (i.e. a monomer) is applied to a core (see, e.g. 16:8-18) and the chain transfer agent is not added until after the prepolymerization process has been initiated (i.e. after completing the preparation of the outermost layer of monomers) in order to reduce stickiness (11:7-17). Thus, Baker teaches the current claim language.

Applicant also argues that Baker fails to teach that multiple shells are formed. This is not persuasive. One cannot show nonobviousness by attacking references individually where the rejections

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are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, Choi teaches that multiple shell layers are formed (¶¶ 0028, 0029) and Baker teaches that the chain transfer agent can be added after completing the preparation of the outermost layer (11:7-17).

Additionally, Izaki teaches that the shell can be a copolymer which would read on the limitation "wherein a number of shell polymers is two or more" if this limitation were entered at this time because a copolymer is two polymers and the claims do not clearly state that the two separate shell polymer layers are required.

Applicant also argues that there are unexpected results associated with the use of two or more shells. The examples described are not commensurate in scope with the claims. The examples only describe two or three shells while the claims state that two or more shells are prepared. More examples would be needed to show that the unexpected results remain present across the full scope of the claim language.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT VETERE whose telephone number is (571)270-1864. The examiner can normally be reached on Mon-Fri 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on 571-272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Robert Vetere/
Examiner, Art Unit 1712

/Michael Cleveland/
Supervisory Patent Examiner, Art Unit 1712